COMPUTERWORLD
The Newsweekly for the Computer Community

FTC Acts On Midwestern EDP School

Washington, D. C. - The Federal Trade Commission has started investigations of a number of EDP schools, and is continuing to receive 'a steady trickle' of complaints about apparent misrepresentations made by some of them. The Mid-West for some reason appears to be a center of dissatisfaction and more complaints are coming from this area than from any other. In one case - that of the Mid-West Automation Training-Kansas City, Inc. of Kansas City, Mo. - the commission has just obtained a consent order forbidding the school to falsely state that it:

- Makes loans to students.
- Is affiliated with IBM.
- Defers tuition until after a student has obtained a job.

Motives Not Relevant

These are more-or-less normal charges which fall under the FTC. The Commission has the job of ensuring that no "Unfair and deceptive acts or practices" are involved in trade. In considering any particular case the motives of the person or firm involved are not relevant - merely whether or not a person has been deceived.

A list of the more normal practices which do fall under this category so far as EDP schools are concerned is given on Page 5.

1800 Core Increased To 24K

WHITE PLAINS, N.Y., - IBM has announced 24,000-word core storage for its 1800 data acquisition and control system.

The new 24K storage size will be available with either two- or four-microsecond cycle times in both the 1801 and 1802 central processing units. Present IBM 1800 systems have 4K, 8K, 16K, or 32K core storage.

All 1801s and 1802s now installed or scheduled for installation this year may be converted to 24K models in the field or prior to shipment. The new 24K models will be supported under the 1800 Time-Sharing Executive (TSX) and the 1800 Multiprogramming Executive (MPX).

Monthly rental for 24K 1800 processing units will range from $2,470 to $3,350 depending on model and cycle time. Purchase prices will range from $91,700 to $111,900. Initial shipments are scheduled to begin in the first quarter of next year.

Simultaneously, PROSPRO/1800 – the "fill-in-the-blanks" programming system designed for the IBM 1800 data acquisition and control system – was made available from IBM. The program can substantially reduce the programming effort associated with the installation of an 1800 system.

The PROSPRO/1800 system normally uses analog signals as measured variables, and set-point positioners for control output.

New Magnetic Tapes Stress Reliability
IBM Reduces Contamination: Graham Cites Error-Free Million Passes

John Diebold, who believes that senior management has abdicated to technicians. (See story.)

Diebold Study Indicts Senior Management
Says Technicians Control EDP Users

New York, N. Y.,--The Diebold Group has released the results of a survey on Cost Effectiveness of Software and Hardware. Some 2,700 executives responded, and, according to the company, 73% of them stated that recommendations for new uses of computers come from sources involved were predominantly in the technical areas - data processing personnel or management science staffs.

The conclusion drawn from the survey (described by the firm as being the most extensive survey of computer users ever conducted in this country) is that senior management has abdicated its responsibilities.

Other parts of the survey indicated that there was a communication gap between management and technical staffs, that companies with larger DP budgets are more aware of the existence of the gap than were smaller companies, and that management science staffs were skilled in implementing applications rather than in determining the real needs of their companies.

The survey results were released during a regular meeting of the Diebold Research Program at the New York Hilton, on October 17 - 18.

Rumor Mill

What airline reservation system is getting perilously close to the penalty cause stage? (Incidentally, why do companies accept penalty clauses without protecting themselves against inadequate liaison people?)

What large company has a PL/1 compiler written that they don't dare talk about? Appears that they just can't face up to the task of effectively having to take the training load involved in loaning it out!

Is it true that Computer Sciences 'Exodus' program will be developed further - and have a special version which handles 1401-to-360 conversions? (The original came from Boise-Cascade, and was for 1410 conversions.)

Two new computer tapes made news last week - IBM's newly announced Series/500 tapes; and Graham Magnetic's Million Pass tape with its user's reporting to COMPUTERWORLD about the success they were achieving with it.

Graham, Tex., A new binder for computer tapes is being used by Graham Magnetics, Inc. It differs from standard binders by not being made of poly-vinyl-chloride (PVC). PVC is characteristically used to bind the iron oxide crystals to the base tape, but, according to Graham Magnetics, it ages. After a period of years a dust falls off the surface, and sometimes this takes magnetic crystals (and perhaps data) with it. Apparently the tape industry has done a great deal of research in minimizing this problem but has stayed with PVC.

Princeton, N.J. – A new formula is being used by IBM in their Series/500 magnetic tape. Under laboratory tests it demonstrated a highly durable coating which makes it less prone to contamination while on computer tape drives. Frank H. McCraken, of IBM, noted that the new tape is the culmination of a two-year development effort undertaken in conjunction with Sony Corporation. Sony was recently in the news when they exchanged patent rights with Du Pont in connection with Crolyn tape.

IBM Management Changes

Armonk, N.Y. – IBM has set up a top-level management committee consisting of two newly appointed senior vice-presidents and two current vice-presidents "to assist the Corporate Office in the management of the overall affairs of the corporation". The Corporate Office is made up of the company's chairman and chief executive officer; the president; vice chairman; and chairman of the executive committee.

Industry observers have interpreted the move, the most drastic change in IBM's management structure in recent memory, as an attempt to strengthen management control as the firm tries to keep on top of the many problems involved in coordinating a world-wide effort in the hardware and software evolution of the 360 computer series, and in laying the groundwork for the introduction of a new generation of computers at the end of this decade.

Two Senior VP's on Committee

The two executives who have been elected to the post of senior vice-presidents and have been placed on the management committee are: Richard H. Bullen, formerly a vice-president responsible for part of the IBM Corporate Staff. Bullen, an IBM vice-president since 1963, is a graduate of Utah State University and holder of an M.B.A. degree from the Harvard Graduate School of Business. Mr. Bullen joined IBM in 1946.

G.E. Jones has been a vice-president and president of the IBM World Trade Corporation since 1963. A graduate of Harvard University, Jones joined IBM in 1938, and has served as sales manager of the domestic company and as president of the Data Processing Division. The two other members appointed to the committee are McLain B. Smith and John R. Opel, who both continue as vice-presidents.

New World Trade Head

Replacing Mr. Jones as president of the IBM World Trade Corp. is Jacques G. Maisonrouge. IBM World Trade, with headquarters in New York, is the subsidiary of IBM responsible for all IBM business outside the United States.

Mr. Maisonrouge, a native Frenchman, has been a vice-president of IBM World Trade since 1962, and a director since April 1967. He joined IBM France in 1948 as an applied science representative and salesman. He was appointed assistant sales manager for IBM France in 1954, and advanced to regional manager responsible for IBM business in 11 countries in 1958, and became assistant general manager for Europe in 1959.

Two More Senior VP's

Two other IBM executives were appointed senior vice-presidents at the same time as Bullen and Jones. They are: Frank T. Cary, formerly a vice-president, who continues as general manager of the five-division Data Processing Group which develop, manufacture, market, and service computers and other data processing systems. A former president of the Data Processing Division, Cary joined IBM in 1948. He holds a B.S. degree from the University of California at Los Angeles and an M.B.A. degree from Stanford University.

Warren C. Hume, formerly an IBM vice-president since 1964, has been responsible for that part of the Corporate Staff that did not report to Mr. Bullen. He will now head the entire Corporate Staff. Earlier, he had been a regional vice-president and president of the Data Processing Division. He joined IBM in 1939.

Editorials

Take A Pair Of Sparkling Tapes!

The tape market is changing fast. Today's news reports another new type of computer tape which has unusual characteristics. This time it involves a new type of binder - and one which prevents rub-off. A very nice idea. One which users say allows them to get unusually high reliability. The manufacturer, Graham Magnetics, tells us we can expect an error-free MILLION passes! That IS reliability!

Computerworld naturally welcomes these tapes. It welcomes hearing of anything that helps users - and particularly where the competition is not just on a price basis, but provides a new weapon for the computer man's armory.

Welcome, Graham Magnetics.

Not A Computer Horror Story

In a widely publicized case Mrs. Jaynee Shearer of Los Angeles received a check for $19,065 from the Los Angeles County Auditors Office, when she should have only received $15. Believing that her separated husband had paid four years arrears in alimony, all at once, she took the money, and had a good time at Las Vegas. When she came home the police arrested her, and the story was passed all over the nation about the 'mistake' made by some anonymous computer.

In fact, apparently the computers were not involved at all. Computerworld has learned that the error occurred in the tabulating department, and that the equipment concerned was a 407. For some reason not quite clear a batch of checks were improperly prepared, and were put to one side for destruction. Instead, this one was mailed out.

No computer horror story here.

Philco-Ford Returns

Getting back into the computer market once you have practically vanished from it is never easy. It helps to do things which others have not done. Philco-Ford certainly know this - and they are certainly doing new things.

To start with, their color displays, which were reported in these columns a month ago, showed that color was available if needed. Now their action in going after a computer market by providing an industry-styled service complete with software, remote-operation, background programming, etc. shows another original way of attacking the problem.

Good Going, Philco-Ford. Looks as if you will get there.

It's Exciting Being Here

We have been sitting in the editorial chair for nearly four months now. And we must say it is exciting. There is so much NEWS going on. Real events – important to all of us in the industry – happen so fast that even we (who spend all our time looking for them) cannot keep pace.

Yes, it is exciting to be here!

COMM off it ACM!

The present situation in computers is as it has always been - revolutionary. Computers have not yet been integrated into the standard way of doing things, and each few months we have to find new ways of handling matters. In this style of line some of the old forms of politeness, and status quo are best forgotten. One such form is the self-congratulating operations of technical journals.

It is, of course, normal for the journals of learned societies to praise their own meetings, the importance of their talks, the brilliance of their presentations etc. A very human and ordinary method, and one insisted upon by most of the committees that rule such societies. However, it is a very dangerous style to 'fall into in this day and age, particularly for a computer society.

The October issue of the Communications of the ACM carries an article on the recent ACM meeting in Washington. Couched in the normal tones of learned society journals it congratulates everyone on everything. It does not mention any criticism of the presentations or of the form of the conference. This is a great pity.

In fact, one of the best parts of the conference, as reported in the COMPUTERWORLD September 6 issue, was one where the officers and the more active members of the society took a serious look at the conference and its papers. They were almost unanimously described as being unsatisfactory. The standard words used to describe the papers by the members of the society were couched in four-letter Anglo-Saxon terms! This was supported not just by the rank-and-file membership, but also by the leadership of ACM.

There were, in fact, various solutions offered. One was to attempt to force AFIPS to stop having two conferences a year - so as to increase the supply of reasonable papers. Another was to abandon the pretense that the conference is for more than social activity. Some good points were made - and some bad points. But the membership did talk about this - and so did the leadership.

This was a very healthy sign, and one which COMPUTERWORLD hopes will continue. But it is not encouraged when the Communications fail either to show an awareness of the criticisms, or to report the members' opinions and suggestions.

Comm off it, ACM! We're not that perfect yet!

It's Not A Wrong Design . . . Simply No Design

Operating systems are wonderful things - but they do part the user-programmer from the full abilities of the machine that his employers have paid for. Generally this is all to the good, and improves both programming and production efficiency. Sometimes, however, it turns out that a user wants something which the hardware can provide - but which the software won't give him. Or something which the software gives him in a less useful way than the hardware can provide.

This gets users annoyed. Sometimes they want to do something about it - they want to insert a user-written routine into the operating system. This will work within the framework of the operating system, simply being 'hooked' on to it in some way or other.

<p style="text-align:center">And THERE is the problem.
'...IN SOME WAY OR OTHER...'</p>

In general, whenever anyone tries to insert something into an operating system the result is immediate or delayed disaster. Because the specifications of how to do this are not clear, and rarely easily usable.

<p style="text-align:center">WHY NOT?</p>

If you start asking people about this question - asking them just WHY we don't have clear instructions and capabilities to add our own modifications we are generally met with some version or other of two arguments - the LEGISLATIVE OBJECTION, or the EFFICIENCY OBJECTION.

The Legislative Objection is based on the premise that it is better (or essential) that a user does not meddle with the insides of the operating systems. This is frequently backed up with tales of horror and woe as to what happened when the gross hands of some person fiddled with the beautiful work of the operating system - and disaster came. This is often true. According to the argument because this has happened in the past it will also happen in the future; so it follows that the user should be outlawed from touching the operating system.

There is a more sophisticated argument against providing this style of information. This is based on the claim that the efficiency of the operating system will be reduced if hooks are provided. Here the point is made that whenever a hook is involved, then the operating system must test to find out if it is there - WHETHER IT IS OR NOT. These tests, according to this argument, add to the overhead for everyone who is using the operating system. Thus it follows that the few cannot be allowed to insert their own specifically-placed hooks because the many would have to pay the cost.

This can be called the EFFICIENCY ARGUMENT.

Overhead costs SHOULD be preventable.

Operating system (and compiler, etc.) modifications should be easy, expected, planned for and worked with.
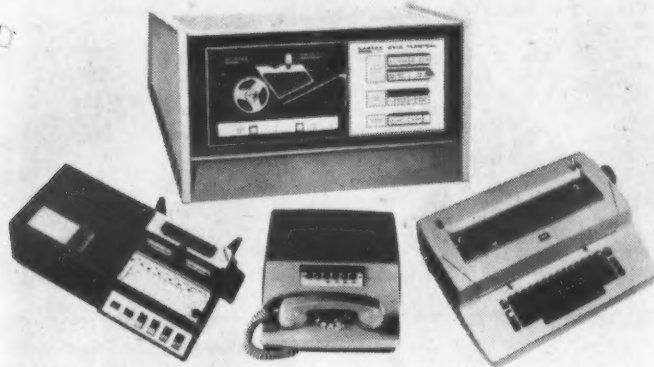
Software policies should include a construction answer to the users need, instead of the standard destructive answers which appear to cover a lack of planning and not a serious opinion as to what is best for the fellow who is paying for the equipment.

Historically, it is clear that we will get hooks - some day. We NEED them, so we will get them.

But WHEN we get them depends upon just when our software designers come up with a policy that is not just an excuse for doing nothing.

Here's hoping that that is soon.

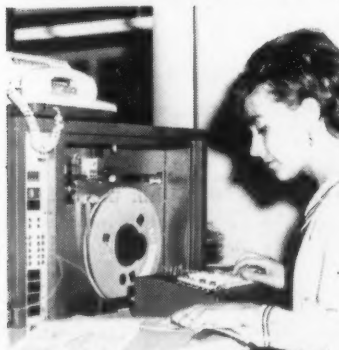<p style="text-align:right">MR. COMPUTERWORLD</p>

A DARTEX Data Terminal using 1/4" magnetic tape is shown above, with the optional card-reader, and selectric typewriter arranged on either side of the dataphone used for transmission purposes.

DARTEX DATA TERMINALS CAN INTERFACE WITH 360s

Seattle, Wash., The Tally Corporation is offering their new DARTEX Data Terminals in direct competition with the successful Mohawk units. (See picture). The Dartex terminals use 1/4 inch magnetic tape, and can be connected on-line through the multiplexor channel of a 360/30 or above. A network costs about $10,000 a station, with an on-line computer station (without a typewriter) costing about $13,000. Leasing terms for between two and five years are available, and the cost per month of the unit is more than halved when a long-term lease is taken.

Technical Details

The Dartex Data Terminal can convert keyboard, punched card, or paper py print-out. A card reader option converts punched card data to magnetic tape at 75 cards per minute. The terminal also converts paper tape data to magnetic tape.

The Dartex Data Terminal also has the capability to record or reproduce data at 1600 characters per second for high speed computer input/output. Most common application for this feature is an interface to the IBM 360 for data entry using the 360 multiplex channel.

Mohawk Data Terminal, which uses 1/2" magnetic tape.

tape data onto magnetic tape for data transmission or high speed computer entry.

When interfaced to a data phone, the terminal can send or receive data over ordinary telephone lines at 1200 words per minute. It also offers unattended operation and automatic retransmission of data received in error.

A typewriter option to the terminal provides both data entry and hard co-

Quarter Of A Billion Dollars Available
40% Equity Given By Leasing Firm

NEW YORK, N.Y. – Machine Equity Corporation, a subsidiary of Computer Power International, is offering a new form of leasing plan - presently primarily for 360 computers. The new plan offers a 40% equity in the machine after a period of five years. It also offers a 10% reduction in the lease price, and Alfred Eichner, the Director of Public Relations, told COMPUTERWORLD this week there is a quarter of a billion dollars available to finance the leasing program. This makes it one of the largest computer leasing programs available in the country.

First Five Years

During the initial lease the monthly rental is discounted by 10%, unlimited use is allowed and the manufacturer's prime shift maintenance charges and casualty insurance are paid by MEC.

Additional components can be added to a system provided that they are field retro-fitable by the manufacturer. If, however, a processor change, or some other switch is necessary, the matter must be negotiated between MEC, the manufacturer and the lessee.

During this period MEC estimates that there are 25% savings. This is based on the 10% discount, and a 15% "monthly residual credit".

Later On

Subsequent to the five-year term, the lessee can continue to use the system – in which case the net rental is discounted by 40% so that the rental is effectively reduced to 54% of the original manufacturer's rental. Alternatively, if the machine is returned to MEC, the lessee can expect to receive 40% of the net income (after allowing for maintenance, insurance, taxes, etc.) which MEC is able to obtain from the system.

Other Systems

MEC will consider leasing arrangements for non-360 systems. However, because of variation in maintenance costs, it it not necessarily offering the same terms to the lessee of these systems.

PACKAGED EDP STAFF OFFERED AS COMPUTER CONVERSION AID

NEW YORK: A temporary personnel agency - Staff Builders - has come up with a new idea in handling conversion problems, while a firm moves from one computer system to another. They are offering a packaged service - consisting programmers or key-punchers or supervisors - what ever is required to do the job.

Programmers Available

The system has recently been tested out during a conversion operation at a Philadelphia savings bank. Here the team took care of many of the exceptional tasks, allowing the bank personnel to continue with their normal day-to-day work. The assignment of work between the two groups is pre-arranged after a study of the situation made by the personnel agency has been presented to the employer for his approval.

In this particular conversion operation no high-level technical personnel were required. However, Harold Prince of Staff Builders told Computerworld this week that it was quite easy for them to supply operators, programmers, etc., for almost any type of system. They draw these from the pool of temporary workers which they run as part of their normal business.

Team Operation

The novel part of the operation appears to be the idea of providing a team - which they guarantee to keep up to strength throughout the period while it is needed - despite illness, accident, etc. They feel that this approach to the difficult conversion period is a new, but valuable one.

NEW ELECTRONIC ACCOUNTING SYSTEM IS ANNOUNCED

Burroughs Corporation has announced the E6000 Electronic Accounting System. This new system is the most powerful to be released by Burroughs in the continual evolution of its Series E Electronic Accounting line.

President Ray W. Macdonald said that the E6000 is an internally programmed electronic accounting system with 400-word core memory. The system can control a wide variety of peripheral units including the high speed Burroughs A988 Line Printer.

The E6000 will sell at the $28,000 to $70,000 range. Monthly lease rates run from $650 to $1,740. Initial deliveries of the system are scheduled for the second quarter of 1968.

Data is fed into the system with punched cards, magentic ledgers or through the alphanumeric keyboard. The E6000's punched card input provides an easy, fast automatic method of getting programs, transaction data, and report writing data into memory so the user can take maximum advantage of the system's processing power.

High speed output is added to the E6000 system with the Burroughs line printer.

COMPUTERWORLD

$9.00

Our Cover Story

Preventive Medicine Seen For Accounting Pains

Mount Carmel Mercy Hospital in Detroit has applied some "preventive medicine" to a potential accounting headache posed by the sudden surge of patients covered by the new Medicare program.

The remedy, developed on an RCA 301 computer at the hospital data processing center, consists of a special computer program designed to handle the vast amount of paperwork associated with the Medicare plan. Programmed to cope with countless calculations required by Medicare in figuring patients' prorated charges, the system is expediting in-patient billing and reimbursement that otherwise would require hours of extra clerical work.

Sister Mary Dolora, R.S.M., Administrator of the 559-bed hospital, said the RCA computer also has provided increased accuracy and control of each patient's billing record, and precisely tabulates the amount of each person's hospital insurance coverage under the Social Security Act.

Based on specifications approved by the Social Security Administration, the computer itemizes, prorates and describes all charges ranging from daily private care to such incidentals as telephone and television expenses.

It produces an itemized bill listing the amount covered under any of seven Medicare plans; the amount to be paid by the patient, and the private coverage supplied by Blue Cross or Blue Shield plans.

A prorated summary bill is produced for each patient and for the Social Security Administration, listing the balance owed by the patient and charges not covered by Medicare or other hospital insurance.

Charges are recorded, key-punched and stored in the computer memory each night and the file containing approximately 6,000,000 charges is updated daily.

The Medicare application is operating within the system's accounts receivable program which handles regular admission, billing and emergency in-patient records.

Mt. Carmel – one of 24 hospitals operated by the Sisters of Mercy in its three-state Midwestern Province – handles 20,000 in-patients a year, nearly 40 per cent of whom are covered by Medicare.

New Magnetic Tapes

Graham Magnetics, on the other hand, has changed binders. They are using a different elastomer family, one which they say does not have the problem of rub-off. Their claim is that the tape can be passed a million times – and still show no permanent errors. In this claim they are being supported by people who have tested the tape on test equipment, and in general use. The Navy, using a Control Data tape certifier, ran over three quarters of a million passes without finding any permanent drop-outs. (The tests were dropped purely owing to the need to use the test equipment for other work.) Denver, Colo. Blue Cross/Blue Shield has been using the tape on its installations and is enthusiastic over the savings in machine time. A large university, which has been used by Graham Magnetics as a test bed, told Computerworld that they rate the tapes as being the best they have so far managed to obtain. Here the tapes are normally used as scratch tapes, and they have been in use now for over a year.

SWAP More Confident As It Faces the Future

Much Progress Seen In Last Six Months

BOSTON, MASS. – SWAP, the users group for Control Data 160, 1700 and "Lower 3000" systems, met here this week in an unusually encouraging atmosphere of technical progress. Since the San Francisco meeting six months ago, substantial progress has been made, the representations then made to the manufacturer has been both listened to and implemented; the software promised for the systems had been coming along on-time and in usuable form; with the result that the conferees were all ready to start on new tasks rather than trying to put patches on old, unsolved problems.

MASTER, the Control Data's multiprogramming operating system, was a particular area of interest as it had only recently been delivered. Early users seemed very pleased with the system, and felt that it appeared to be capable of doing almost anything that IBM's full Operating System could do – but on a smaller system.

The small overhead involved was being mentioned specifically, as it had been found that often jobs were running faster under the MASTER multiprogramming system than under the quite satisfactory Mass Storage Operating System MOS.

Examples Provided by Users

The co-ordination between the SWAP software committee and the Control Data's advisory committees has been very fruitful, since the last conference. All five modifications which had been asked for in the manufacturers software at that time had not only been agreed to – but had already been implemented. Credit for this achievement was being shared by both sides – the software committee for organizing their approaches so as to make the manufacturers task easy – and the company for setting up a new organization which appeared to be getting things done.

The software committee's approach had been to present the company with already working coding for the desired changes. This was naturally incorporated in the current version of the software. Thus, when a matter of a cross reference diagnostic was asked for in the Fortran compilers, a working example was provided by the users group. The company's task was to take over the maintenance of the change, and to check on its operation, and then to carry it on into future versions.

Control Data's new User Group Advisory Council had been working, through its committees, with the SWAP committees, during this period. Judged by the only realistic measure available – achievement – it had been working well. So well, in fact, that the questions in the minds of the various leaders as they gathered was just into which new areas should they be putting effort to see that the users worked together and in their mutual interest.

THE CONFERENCE

The conference will run through Wednesday, October 25. Among conference guests will be two prominent Bostonians who will deliver luncheon addresses before conference delegates. On Tuesday, the second day of the meeting, Dr. Harold E. Egerton, Professor of Electrical Engineering of M.I.T. will speak on cameras and pigners in the sea, an explanation of the use of photography and sonar as instruments in experimental oceanography. on Wednesday, M.I.T.'s Professor of Physics, Philip M. Morse, will speak on "The Use of Computers in Operations Research". Professor Morse is a former director of the M.I.T. Computation Center, and a member of Control Data Corporation's Board of Directors.

Control Data Corporation will install terminal equipment at the Hotel Somerset, which will be linked by long-distance telephone lines to an advanced CDC 3300 computer system at Control Data's Arden Hills, Minn., plant. The 3300 system and its terminals will be used in a demonstration of "MSOS/RESPOND", a Control Data software system designed to make available to many users at remote locations electronic data processing capabilities of a single CDC 3300 computer. In other words, the CDC system will dramatize to conference attendees how time-sharing, a major EDP concept, works.

ORDERS & INSTALLATIONS

California Computer Products, Inc., Anaheim, Calif., has received a subcontract to provide the "militarized" digital plotter for use in Tactical Information Processing & Interpretation Systems being built by Texas Instruments of Dallas, Tex., for the Aeronautical Systems Division, Wright-Patterson Air Force Base, O.

William Rabkin, Itek Corporation, gets his first hands-on experience with the MSOS/RESPOND system. Itek, in an unusual move, is sponsoring a MASTER users workshop immediately after the conference itself.

Control Data Groups To Merge?

SCOPE Wins One, Loses One

The SCOPE committee, which is endeavoring to encourage the formation of a single users group for all Control Data systems, had had a major success - and a not unexpected defeat in its endeavors.
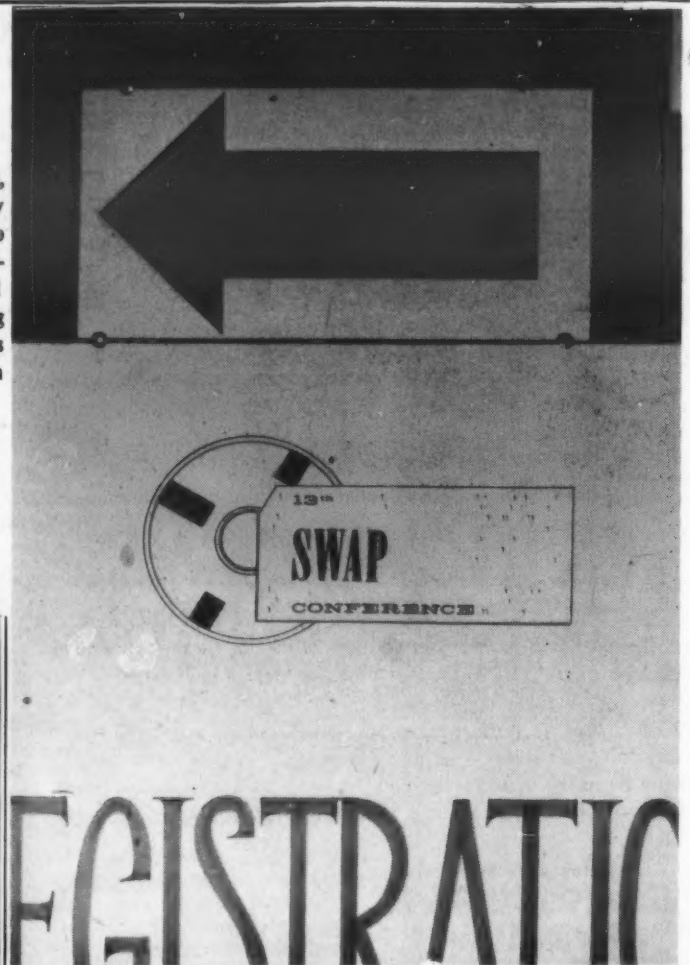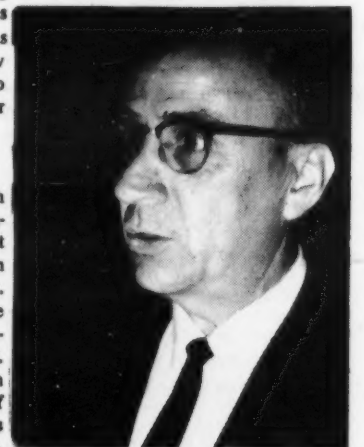
Its success came at the Pittsburgh meeting of CO-OP, the users group for the 1604s, 3400s, 3600s and 3800s. The CO-OP executive presented a motion approving the scheme to the meeting, and it was adopted. A CO-OP representative is currently expected to talk to the SWAP meeting this week in Boston to present CO-OP's views on the advantages of the merger.

The failure came when VIM, the users group for the super-scale 6000s, turned down the approach. However, the organizers of SCOPE felt that this was to be understood in view of the great difference between the problems facing the groups.

The key decision appears to be which way the other continuing user group, SWAP, will go on the question. Some light on this will be shed during the current meeting of that organization; but it appears improbable that a final decision on the matter will be taken for some time yet.

SCOPE itself, which consists of representatives of two Control Data users groups which dissolved themselves in a joint meeting in August, has set up a caretaker governing body which includes representatives of the G-15 and LGP-30 users, and of a number of the more mature systems presently in SWAP. These include 160s, and 924s. The name comes from a near-acronym of four of the five Control Data users which existed in August - SWAP, CO-OP, POOL, EXCHANGE. Interestingly enough VIM, which has rejected SCOPE's overtures, was not included in the acronym.

Why People Came

Joseph Rayfield, of the U.S. Post Office, came to the conference to pick up tips on Operation Management, and Real-Time Programming. Mr. Rayfield here is showing a plastic badge which is being used in the Postal Source Data System - which he believes is one of the biggest applications yet implemented. The system uses nearly 10,000 data collection systems in the 75 largest post offices in the country. These are being connected to 4 Control Data 1700s acting as concentrators and the work is being processed in either Paramus, N.J. or St. Louis, Mo. on Control Data 3100s. The central computers have no input-output in their own computer-rooms.

FORD-PHILCO OFFERS INDUSTRY PACKAGE

Fast Freighter Software Shown At Trucking Ass'n

CHICAGO, Ill. – Philco-Ford Corporation unveiled a new computerized communications and electronic data processing system for the motor freight industry here today as the American Trucking Association opened its annual convention at the Conrad Hilton hotel.

Called the Fast Freighter, the fully automated system was demonstrated using two interacting terminals.

Simultaneously, a typical payroll of 143 employees representative of the payroll activity at an average terminal, was performed in the background area of the Philco 102 processor.

Both functions were being performed under remote control in Chicago, using a single data processor 800 miles away from the Philco-Ford plant in Willow Grove, Pa.

The dual demonstration of specific motor freight applications and simultaneous background data processing using a single computer was designed to show the versatility and usefulness of the Fast Freighter to a trucking company.

Remote terminals of large, interstate trucking companies communicate with their headquarters and with each other by telephone and teletype in today's operations. Messages are handposted on a central display board and required constant updating and reference by a number of fulltime personnel.

Some doubling up is possible, but additional personnel usually are required for dispatching, time scheduling and inventory management. The paper work involved in a large trucking operation is tremendous.

And because of the system's simultaneous data processing capability, it also can be used for such standard business applications as computing payroll, accounts payable and receivable, daily revenue and operating statistics compilation, budget performance and profit analysis and the generation of financial statements.

MORTGAGE LOAN PROGRAM RELEASED

WHITE PLAINS, N.Y. –Mortgage loan processing can now be run with the On-Line Teller Program of IBM's System/360. This additional capability allows a system to run batch-type mortgage loan processing as background to the on-line teller operations.

In addition to mortgage processing, IBM's On-Line Teller Program performs the basic accounting normally associated with teller activity at a savings window. It accepts entries from an IBM 1060 data communications system, maintains depositor records on 2311 disks, responds to the teller terminal tape or the passbook, accumulates teller totals and develops a journal of savings transactions. It also keeps control totals, which, with teller totals and the journal, make possible a daily audit of depositor records.

Included with the program are file conversion and file organization programs to aid in establishing and maintaining the on-line savings master file.

With mortgage loan capability the teller program requires a minimum 32,000-byte core storage. Used alone, it can operate with a 16,000-byte system.
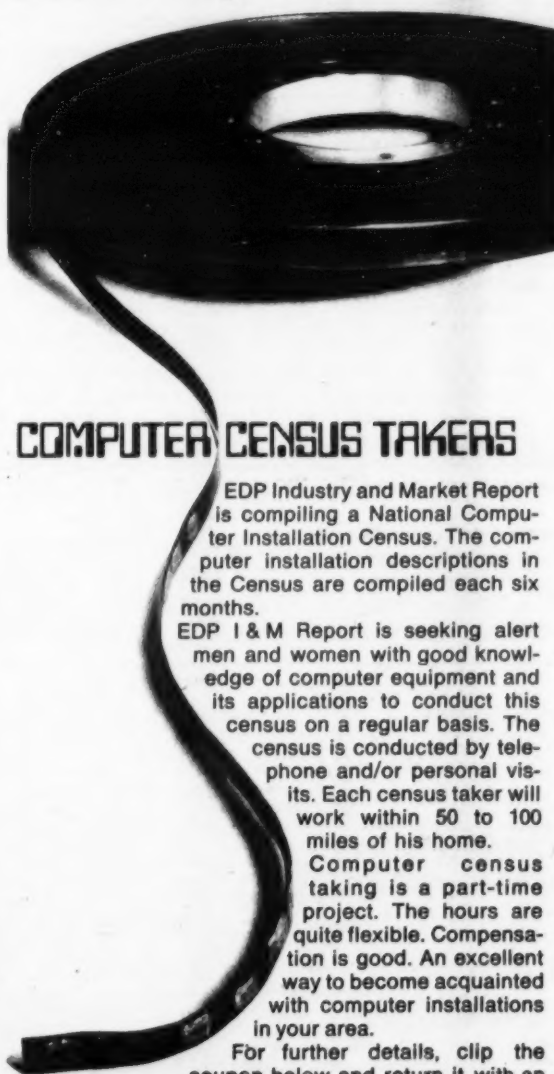
Used Computers Economical Says Broker

The meeting of the Systems & Procedures Association, held at the New York Advertising Club, was addressed by Harvey N. Berlent, President of The Computer Exchange, Inc. The Computer Exchange, Inc., is an international computer brokerage firm based in New York City.

Mr. Berlent discussed the computer characteristics and capabilities of the "NOW" generation of computers. The "NOW" generation is comprised of depreciated first, second, and third generation EDP systems. Acquisition of these computers can result in savings many hundreds of thousands of dollars for companies utilizing EDP equipment.

Banks and insurance companies are examples of firms that can benefit by employing "NOW" generation computers. The banks and insurance companies that found EDP costs exceeding justification may now install fully programmed computer systems at a fraction of the previous cost. The software can be supplied by the previous user of the equipment, coordinated through marketing organizations, industry associations such as the American Banking Association, and the computer manufacturers. Utilization of previously developed software not only results in immediate dollar savings but allows the computer system to become operational in a fraction of the time required compared to the programming of the jobs from the beginning.

Mr. Berlent discussed the recent statement made by Mr. Thomas J. Watson, Jr., Chairman of the Board of IBM, that the mid-70's would see a new generation of computers. "It will be closer to 1970 than to the mid-70's when we see the delivery of fourth generation computers," stated Mr. Berlent. Numerous reasons and examples were cited in this area of discussion.

Mr. Berlent concluded by stating that "the most significant factor to remember is that there exists today other methods of the acquisition of computer components, complete computer systems, and proven software than the single source that existed prior to the "NOW" generation.

EDPeople

Scientific Control Corp., Dallas, Tex., has announced the appointment of Clyde Williams as Controller for the corporation.

Edward K. Merewether has been appointed senior project engineer for the Instrumentation Systems Department of Wyle Laboratories, El Segundo, Calif.

Frank L. Bentley has joined Computer Sciences Corp. as national manager of U. S. Air Force accounts for the company's Computer Sciences Division.

Photon, Inc., announced appointments to newly-created management staff positions at corporate headquarters in Wilmington, Mass.: Theodore Magida, general manager of the Engineering Graphics Division, Donald P. Persons, manager of the Customer Service Division, and Maurice Selvin, advertising manager.

Programming language specialist Saul Hanges has been appointed Project Director of Arthur S. Kranzley and Co. Hanges was formerly manager of language systems for RCA's EDP Systems Programming activity.

Kranzley and Co. is a management consulting organization best known for corporate strategy studies of new products, markets and services such as bank credit card plans.

IBM World Trade Corporation announced today the election of Donald B. Otis as treasurer.

Mr. Otis joined IBM Corp. in 1952. From 1955 through 1957 he was, successively, controller of the Federal Systems Division, director of planning, FSD, and controller of the Office Products Division. In March 1967, he was elected assistant controller, IBM World Trade Corporation.

What The FTC Doesn't Like About Some EDP Schools

These are the normal practices which the FTC frowns on . . . Printed advertisements, announcements, etc. including items like:

- 'IBM' in bolder letters than anything else.
- Schools not being identified as such.
- Vagueness as to the amount of equipment, and the up-to-dateness of the hardware and software with which the student will be trained.
- Placement service offers, when the school does not have a real service.
- Misrepresentation of the salary range of a graduate of the school. This is normally because the industry does not often recognize the graduation certificates of the school; and regards the student as a trainee - and pays accordingly. The student will have been shown salary ranges which are those of experienced programmers, customer engineers, etc.

Verbal Representations

Spoken representations, or even implications, are sufficient to support an FTC order *if their result is misleading.* Any of the above items, if told to a student or to his parents by a representative of the school, can form the basis of a valid complaint.

Where to Complain

Anyone wishing to complain can write to the Federal Trade Commission Bureau of Deceptive Practices, Pennsylvania Ave. at 6th Street, NW, Washington, D.C. 20580. Their names will be kept confidential.

FINANCIAL MATTERS

NEW YORK, N.Y. *Randolph Computer Corporation* reports its 9 month earnings up 300%. During the nine months ending September 30, reported earnings increased from $274,000 ($0.26 per share) for the corresponding period of last year to $1,188,000 ($1.03 per share). The company reported that at September 30 it owned $60.9 million IBM System 360 computers, having purchased $11.9 million worth during the 3rd quarter.

DAYTON, OHIO, *National Cash Register* : EDP "Most Rapidly Growing Segment." During the 9 month period ending September 30 revenue totalled $673,129,235 (up 9%) and net income was $17,060,641 (up 10%). Chairman Robert S. Oelman attributed the sales and earnings gains to increased deliveries of most major lines of NCR products, and to greater income from NCR's maturing investment in rented computer systems. "The electronic data processing field," he said, "continues to be the most rapidly growing segment of our operations!" Sales value of EDP orders was up 21% through September.

LOS ANGELES, CALIF., *Scientific Data Systems* : 9 month net income up 48%. The 9 month figures ending September 30 showed revenues of $50,015,000 up from $30,448,000 for the same period last year. Net income increased 48% to $4,662,000 or $1.29 per share. Max Palevsky, SDS President, said that the improved profit margins were a result of manufacturing economies and increased emphasis on cost controls.

DETROIT, MICH., *Burroughs Corporation* ; Operating earnings up 20%. The 9 month figures ending September 30 showed net operating earnings of $19,187,000 up 20% compared with adjusted earnings of the same period last year. Ray W. Macdonald, President, said that orders for commercial EDP equipment continued strong. World-wide backlogs continue to grow, and are currently 57% greater than they were at the start of the year.

HERKIMER, N.Y., The shareholders of *Mohawk Data Sciences Corp.* and *Anelex Corp.* approved the proposed merger of the two companies at special meetings. The formal merger took place shortly afterwards.

ANAHEIM, CALIF., *California Computer Products, Inc.,* reported net earnings of $220,217 on sales of $3,044,843 for the first quarter of fiscal 1968, ended October 1, 1967. This compares with net earnings of $217,652 on sales of $2,086,487 for the like period a year ago. On a share basis, earnings amounted to 20.1 cents per share on 1,096,815 average shares outstanding, compared with 25.9 cents per share on 838,851 average shares outstanding last year.

FT. LAUDERDALE, FLA., *Systems Engineering Laboratories* reported sales of $2,531,000 for the first quarter ended September 22, 1967, and net income of $178,000 or $ .19 a share. For the first quarter of the previous fiscal year, the company reported sales of $1,530,000 and net income of $64,000 or $ .07 a share. In fiscal year 1967 which ended June 30, 1967, the company had sales of $8,027,000 and net income of $304,000 or $ .32 a share.

How They Moved Last Week

Week Ended October 20, 1967

NEW YORK STOCK EXCHANGE	1967 High	1967 Low	Week High	Week Low	Last	Week Net Change	Week %Change
Addressograph-Multigraph	73	46 7/8	70 1/4	65 3/4	66 5/8	- 2 7/8	- 4.14
American R&D	152 1/2	37 3/4	150 1/2	127 1/4	146 1/4	+10 1/4	+ 7.54
Ampex Corp.	40 3/4	22 3/4	36 1/4	33 1/4	34 1/2	+ 1 1/8	+ 3.37
Burroughs	174 1/8	80 7/8	168 1/4	157	162 7/8	- 3/8	- 0.23
Collins Radio	114 7/8	53	97 3/8	90 1/4	95 3/8	+ 3 7/8	+ 4.23
Control Data	148	33 1/2	148	135	147	+ 8 5/8	+ 6.23
Electronic Associates	30 1/4	16 3/4	29 3/4	26 7/8	28 5/8	- 1/4	- 0.87
General Electric	115 7/8	82 1/2	110 1/2	106 1/8	107 1/4	- 1 3/8	- 1.27
Honeywell	92 3/4	63 1/2	91 7/8	84 1/4	90 1/4	+ 3 1/4	+ 3.74
IBM	598	382 1/2	598	574	597 1/4	+11 1/4	+ 1.92
Litton	112 3/8	79 1/2	112 3/8	102 1/4	110 7/8	+ 7 1/2	+ 7.26
Nat Cash Register	120 1/4	67 1/8	120 1/4	112 1/4	119 3/4	+ 7 3/4	+ 6.92
RCA	62 3/4	42 5/8	62 5/8	58 1/4	62 1/4	+ 3 3/4	+ 6.41
Raytheon	104	49	104	97	102	+ 4	+ 4.08
Sanders	63 5/8	37 5/8	63 5/8	32 1/4	63	+ 7 3/4	+14.03
Scientific Data	126 3/4	70 3/8	126 3/4	110 3/4	122 1/4	+ 8 5/8	+ 7.59
SCM	82 1/4	48 3/8	54	48 3/8	48 1/2	- 4 5/8	- 8.71
Sperry Rand	50 1/8	28 1/8	49 1/2	46	49 1/8	+ 2	+ 4.24
NYSE COMPUTER STOCK AVERAGE						+ 3.90	+ 3.46

AMERICAN STOCK EXCHANGE	1967 High	1967 Low	Week High	Week Low	Last	Week Net Change	Week %Change
ANelex	53 1/2	11 1/2	53 1/2	45 1/4	53 1/8	+ 7 1/8	+15.49
Audio Devices, Inc.	30 3/8	21 5/8	25	23 1/4	23 1/4	- 1 7/8	- 7.46
Automatic Data Processing	50 3/4	41 1/2	43 7/8	42	43 1/4	- 1/8	- 0.29
CalComp	99 1/8	60 1/4	86	76 5/8	84	+ 2 3/4	+ 2.75
Computer Applications	35 3/4	14	35 3/4	28 5/8	35 1/8	+ 4 3/4	+15.64
Computer Sciences	42 1/2	18	42 1/2	32 1/2	40	+ 7 1/4	+22.14
Digital Equip. Corp.	120	29 3/8	114	104 1/4	109 1/2	- 1	0.90
GC Computer Corp.	41	23 1/4	30 7/8	24 1/2	29 1/4	+ 5 1/4	+21.88
Leasco	93 1/2	35 5/8	80 7/8	74	75	- 5 7/8	- 7.26
Levin-Townsend Computer Corp.	57	10 7/8	50 7/8	44 7/8	48 1/2	+ 2 1/8	+ 4.58
Milgo Electronics	15 5/8	5 1/8	12 1/8	11 1/4	11 1/4	- 1/4	- 2.17
Planning Research	58 1/4	19 5/8	58 1/4	51 1/4	54 1/4	+ 1	+ 1.88
Potter Instrument	37 3/8	12 3/8	31 3/8	29 7/8	30 1/8	+ 1/4	+ 0.84
AMEX COMPUTER STOCK AVERAGE						+ 1.61	+ 5.17

OVER-THE-COUNTER	1967 High Bid	1967 Low Bid	Sept. 29 Bid	Sept. 29 Asked	Last Week Bid	Week Net Change Bid	Week % Change Bid
Bolt, Beranek & Newman, Inc.	30	8 1/4	24 3/4	25 1/2	25	- 1/4	- 1.00
C-E-I-R	20 1/8	6 5/8	19 1/2	20	18 7/8	+ 5/8	+ 3.31
Computer Usage	58	20 1/4	52 1/2	54 1/2	56	- 3 1/2	- 6.25
Cyber-Tronics	17 1/2	4 3/4	12 1/4	13	11 3/4	+ 1/2	+ 4.26
Data Products	17 7/8	2 1/2	12 1/8	13 1/4	13 1/4	- 1 1/8	- 8.49
Digitronics	18 1/4	6	15 3/4	16 1/4	16 1/4	- 1/2	- 3.08
DPA, Inc.	16 1/4	4 1/4	9 3/4	10 1/4	9 5/8	+ 1/8	+ 1.30
Electronic Memories	54 1/2	12 3/4	51 3/4	53 3/4	49 1/4	+ 2 1/2	+ 5.08
Fabri-Tek	15 3/4	6	10 1/2	10 7/8	10 3/4	- 1/4	- 2.33
LMC Data, Inc.	13 5/8	7 3/4	12 1/2	13	13	- 1/2	- 3.85
Management Assistance	24 3/8	12 1/4	12 1/4	12 1/2	12 5/8	- 3/8	- 2.97
Memorex	226	63	208	212	192	+16	+ 8.33
Mohawk Data Sciences	159 1/2	32	159 1/2	161 1/2	141 1/2	+18	+12.72
Optical Scanning Corp.	92 1/2	25 3/4	66	68	60	+ 6	+10.00
Recognition Equipment Inc.	131	48 1/2	96	100	98	- 2	- 2.04
Systems Engineering Labs	54 1/2	8 7/8	54 1/2	55 1/2	45 1/2	+ 9	+19.78
University Computing Co.	127	65	118	122	115	+ 3	+ 2.61

★ BUY ★ SELL ★ SWAP ★

Salary Survey Part 3
• DATA PROCESSING MANAGEMENT

Salary for data processing managers, the top paid position in the data processing field, is itself highest in the W. North Central States. For assistant data processing managers top pay is to be found in the Mountain States, with the South Central States as runners-up. These are two of the findings from a four-month-long salary survey of data processing positions in the United States run by Computerworld's research department.

This week the third-part of a four-part series covers the job functions: Manager of Data Processing and Assistant Manager of Data Processing. CW's issue of Oct. 4 covered the systems analysis function, and the issue of Oct. 11 covered the programming function. Back copies of these two installments are available from Computerworld for one dollar each.

The job definitions, as defined in the survey, of the two data processing management functions are:

MANAGER OF DATA PROCESSING

Plans, organizes, and administers overall activities, including systems analysis, programming, and computer operations.

Direct Responsibility: Implementation of programs of top management; major personnel problems; administrative and organizational concerns.

Deals with: Manager of departments within the computer installation, directors of departments using or planning to use computer facilities.

Responsible to: High-level middle management and/or top management for data processing plans, performance, and objectives.

ASSISTANT MANAGERS OF DATA PROCESSING

Assists manager in his functions. Direct Responsibility: May act for Manager in his absence; directs studies of existing or planned systems and procedures; evaluates new equipments and techniques.

Deals with: Installation staff members and assistant managers of other departments with regard to computer installation systems, procedures, and capabilities.

Responsible to: Manager of Data Processing.

Table I gives the average weekly salary for each of the above two positions in each of nine geographical regions of the country. The regions are defined in the table insert.

The availability of jobs for the Manager of Data Processing is directly related to the number of computer installation facilities in an area. This is in contrast to technical support or professional jobs such as programmer or systems analyst, where a few large installations employ as many or more people in these support functions than do scores of smaller installations. So a census count of the number of computer installations in each section of the country is the prime indicator of the number of data processing manager positions available in each section of the country. Table II presents these counts of the number of data processing manager positions filled or available based on the national computer installation census maintained by the International Data Corporation of Newton, Mass., a leading EDP market research firm.

An interesting fact revealed by Table 2 is the contrast being the availability of jobs for DP Managers vs. Assistant DP Managers. While the position of Manager of Data Processing is distributed in rough proportion to the number of computer installation facilities in an area, the number of positions open for an Assistant Manager of Data Processing is more in proportion to the ratio of large computer installation facilities in an area. For example, although the Middle Atlantic area has 3600 Data Processing Manager positions and the Pacific States has only 2270, the Pacific States has more positions of Assistant Manager of Data Processing than does the Middle Atlantic, by a 1550 to 1350 comparison. This, of course, indicates that the Pacific States

Personal Page

has larger computer complexes per installation facility, on the average, than in the Middle Atlantic States.

One fact stands out in the figures for salary paid to data processing managers, as well as for other positions reported so far as Computerworld's national salary survey....that is, the jobs in the computer and data processing field as among the best paid in nation. And from the growth rates of new computer systems being installed (an estimated 10,000 new computers will be installed in the U.S. this year at new or current installation sites), job availability and salary advancement in the coming year will continue to make the computer and data processing field a most rewarding profession.

TABLE 1
AVERAGE WEEKLY SALARIES

Geographic Area \ Title	Manager of Data Processing	Assistant Manager of Data Processing
New England	$286	$235
Middle Atlantic	268	220
South Atlantic	255	209
E. North Central	276	227
W. North Central	297	235
E. South Central	292	242
W. South Central	290	240
Mountain States	289	263
Pacific States	278	247
National Average	$277	$227

TABLE 2
ESTIMATED TOTAL NUMBER OF PEOPLE EMPLOYED

Geographic Area \ Title	Manager of Data Processing	Assistant Manager of Data Processing
New England	1,300	700
Middle Atlantic	3,600	1,350
South Atlantic	2,080	850
E. North Central	3,860	2,000
W. North Central	1,320	600
E. South Central	640	200
W. South Central	1,340	320
Mountain States	600	105
Pacific States	2,270	1,550
National Average	17,010	7,675

*How the
Sisters of Mercy
Use an RCA System*